

### Remarks

In view of the above amendments and the following remarks, reconsideration of the rejections and further examination are requested.

Claims 22, 29, 31 and 87 have been amended to make a number of editorial revisions thereto. These revisions have been made to place the claims in better U.S. form. None of these amendments have been made to narrow the scope of protection of the claims, or to address issues related to patentability, and therefore, these amendments should not be construed as limiting the scope of equivalents of the claimed features offered by the Doctrine of Equivalents.

Claims 1-47 and 81-91 are rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Specifically, the rejection indicates that (1) the sealing layer having a plurality of recesses opening at least towards the sensor platform recited in claim 1, (2) the sample compartments adapted such that sample solutions or reagent solutions received therein are removable therefrom recited in claim 1, and (3) the grating structures extending over at least a portion of the sample compartments recited in claim 34 are not supported by the specification.

Regarding items (1) and (2), claim 1 has been amended so as to address these issues. However, regarding item (3), this rejection is again respectfully traversed for the following reasons.

As indicated in the Amendment After Final Office Action filed on May 1, 2006, M.P.E.P. section 2163.02 sets forth the standard for determining compliance with the written description requirement. As set forth in this section of the M.P.E.P., “[a]n objective standard for determining compliance with the written description requirement is, ‘does the description clearly allow persons of ordinary skill in the art recognize that he or she invented what is claimed.’” (Citing In re Gosteli, 872 F.2d 1008, 1012, 10 USPQ2d 1614, 1618 (Fed. Cir. 1989). Further, it is noted that this section of the M.P.E.P. also states that, “[t]he subject matter of the claimed invention need not be described literally (i.e., using the same terms or *in haec verba*) in order for the disclosure to satisfy the description requirement.”

In the Advisory Action, the above statement is acknowledged. However, the Examiner again states with regard to item (3) that the argument is not persuasive because “the specification does not provide sufficient explanation as to how much of the sample compartment must be covered in order to extend ‘over the range of multiple’.” Based on this statement, it is apparent

that the Examiner is again referring to the specification and has completely ignored what is clearly illustrated in Figure 1. Regarding this, M.P.E.P. section 608 states that figures filed with an application are a part of the disclosure and can be relied upon for supporting what is illustrated therein. There is no requirement that the specification and figures contain the same disclosure. Figure 1 clearly illustrates (i.e., discloses) that the grating structure (c) extends over a portion of the sample compartment (i.e., from the left hand side of the sample compartment defined by the sealing layer (g) to approximately 1/3 of the way across the sample compartment). One of ordinary skill in the art would need no further explanation as to what a 'portion' means or a further explanation as to how Figure 1 illustrates that the grating structure (c) extends over a 'portion' of the sample compartment. Therefore, it is apparent that this limitation is clearly supported by the Figure 1, which is a part of the disclosure. If the Examiner again maintains this rejection, it is respectfully requested that the Examiner explain why Figure 1 does not support this limitation.

In light of the amendments to claim 1 and the above discussion, withdrawal of the rejection under 35 U.S.C. §112, first paragraph, is respectfully requested.

Claims 1-47 and 81-91 are rejected under 35 U.S.C §112, second paragraph, as being indefinite. Specifically, the rejection asserts that portions of claim 1 and 5 are indefinite. Regarding claim 1, it has been amended so as to address the portion of the rejection related thereto. However, the portion of the rejection related to claim 5 is respectfully traversed.

The rejection states that it is unclear whether the recited excitation wavelength recited in claim 5 is the same as that recited in claim 1. However, claim 1 does not recite an excitation wavelength. Therefore, this portion of the rejection appears to be in error.

As a result of the amendments to claim 1 and the above discussion, withdrawal of the rejection under 35 U.S.C. §112, second paragraph, is respectfully requested.

Claims 1-34, 38-40, 42-47, 81-84 and 86-91 are rejected under 35 U.S.C. §102(b) as being anticipated by Neuschäfer (WO 96/35940). Claims 35-37 are rejected under 35 U.S.C. §103(a) as being unpatentable over Neuschäfer in view of Hashimoto (US 6,480,639). Claims 41 and 85 are rejected under 35 U.S.C. §103(a) as being unpatentable over Neuschäfer. These rejections are respectfully traversed and submitted to be inapplicable to the claims for the following reasons.

Claim 1 is patentable over Neuschäfer, since claim 1 recites a device having, in part, a plurality of recesses opening at least towards a sensor platform, which forms a corresponding plurality of sample compartments in a two-dimensional arrangement, wherein each of the sample compartments has different biological or biochemical recognition elements for specific recognition and binding of different analytes immobilized in five or more discrete measurement areas in a two-dimensional array on a planar optical waveguide. Neuschäfer fails to disclose or suggest these features of claim 1.

Neuschäfer discloses a device having a laser diode 13, a coupling-in grating 3 located on a sensor platform 8, a coupling-out grating 3' also located on the sensor platform 8, and a detector 14. A first filter 9 is located between the laser diode 13 and the coupling-in grating 3 and a second filter 9 is located between the coupling-out grating 3' and the detector 14. The sensor platform 8 contains a waveguide 1 such that light enters the waveguide 1 from the coupling-in grating 3 and exits the waveguide 1 from the coupling-out grating 3'. A flow through cell 11 is attached to the bottom of the sensor platform 8 via a plurality of seals 10, thereby creating a sample space 12 between the sensor platform 8 and the flow through cell 11.

Further, Neuschäfer also discloses a waveguiding arrangement having a number of detection regions 4 located on a substrate 5. Each of the detection regions 4 includes the coupling-in grating 3 and, optionally, the coupling-out grating 3' and a number of divisions 2 forming a plurality of strip-like waveguiding regions having recognition elements immobilized thereon. (See page 9, lines 13-27; page 14, lines 6-12; page 21, lines 18-27; page 29, lines 1-17; and Figures 1a, 2a, 3a, 4a, 5a and 6).

In the rejection, the plurality of strip-like waveguiding regions, which have recognition elements immobilized thereon, defined by the divisions 2 are relied upon as corresponding to the claimed plurality of sample compartments in a two-dimensional arrangement. However, claim 1 also recites that each of the sample compartments has different biological or biochemical recognition elements for specific recognition and binding of different analytes immobilized in five or more discrete measurement areas in a two-dimensional array. As discussed above, the strip-like waveguiding regions of Neuschäfer are disclosed as having recognition elements immobilized thereon. However, there is no disclosure or suggestion in Neuschäfer that each of the strip-like waveguiding regions has recognition elements immobilized in a two-dimensional array. Further, while Neuschäfer discloses that there are a number of suitable choices for the

recognition elements at page 21, lines 19-27, there is no disclosure or suggestion in Neuschäfer that each of the strip-like waveguiding regions has different biological or biochemical recognition elements immobilized in five or more discrete measurement areas as recited in claim 1. As a result, Neuschäfer fails to disclose or suggest the present invention as recited in claim 1.

As for Hashimoto, it is relied upon as disclosing an optically transparent resin 9 and a light absorbent 8. However, Hashimoto fails to disclose or suggest the above-discussed features of claim 1.

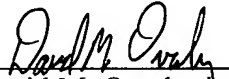
Since claim 1 is patentable over the references relied upon in the rejections, it is submitted that withdrawn claims 48-63 and 92 be given due consideration as being either directly or indirectly dependent from claim 1.

Because of the above-mentioned distinctions, it is believed clear that claims 1-63 and 81-92 are allowable over the references relied upon in the rejections. Furthermore, it is submitted that the distinctions are such that a person having ordinary skill in the art at the time of invention would not have been motivated to make any combination of the references of record in such a manner as to result in, or otherwise render obvious, the present invention as recited in claims 1-63 and 81-92. Therefore, it is submitted that claims 1-63 and 81-92 are clearly allowable over the prior art of record.

In view of the above amendments and remarks, it is submitted that the present application is now in condition for allowance. The Examiner is invited to contact the undersigned by telephone if it is felt that there are issues remaining which must be resolved before allowance of the application.

Respectfully submitted,

Andreas ABEL et al.

By:   
David M. Ovedovitz  
Registration No. 45,336  
Attorney for Applicants

DMO/jmj  
Washington, D.C. 20006-1021  
Telephone (202) 721-8200  
Facsimile (202) 721-8250  
June 30, 2006